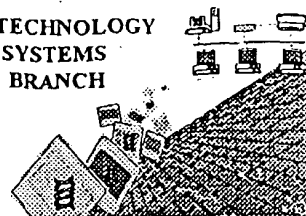


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/068,3770
Source: 1600-
Date Processed by STIC: 1/4/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebs/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/068,377D
ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE		
1 _____ Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 _____ Invalid Line Length	The rules require that a line not exceed 72 characters in length. This includes white spaces.	
3 _____ Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.	
4 _____ Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.	
5 _____ Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 _____ PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.	
7 _____ Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.	
8 _____ Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000	
9 _____ Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 _____ Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence	
11 _____ Use of <220>	Sequence(s) <u>27</u> missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 00701/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)	
12 _____ PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 _____ Misuse of n/Xaa	"n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid	



1600

RAW SEQUENCE LISTING

DATE: 01/04/2004

PATENT APPLICATION: US/09/068,377D

TIME: 13:06:58

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

6 <110> APPLICANT: Lasky, Laurence A.
 7 Dowbenko, Donald J.
 9 <120> TITLE OF INVENTION: Tyrosine Phosphorylated Cleavage Furrow-Associated
 10 Proteins (PSTPIPs)
 12 <130> FILE REFERENCE: P1066P2
 14 <140> CURRENT APPLICATION NUMBER: US 09/068,377D
 15 <141> CURRENT FILING DATE: 1998-05-08
 17 <150> PRIOR APPLICATION NUMBER: PCT/US98/01774
 18 <151> PRIOR FILING DATE: 1998-01-30
 20 <150> PRIOR APPLICATION NUMBER: US 08/938,830
 21 <151> PRIOR FILING DATE: 1997-09-29
 23 <150> PRIOR APPLICATION NUMBER: US 08/798,419
 24 <151> PRIOR FILING DATE: 1997-02-07
 26 <160> NUMBER OF SEQ ID NOS: 76
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 415
 30 <212> TYPE: PRT
 31 <213> ORGANISM: Mus Musculus
 33 <400> SEQUENCE: 1

Does Not Comply
 Corrected Diskette Needed

pg 6-7

34 Met Met Ala Gln Leu Gln Phe Arg Asp Ala Phe Trp Cys Arg Asp
 35 1 5 10 15
 37 Phe Thr Ala His Thr Gly Tyr Glu Val Leu Leu Gln Arg Leu Leu
 38 20 25 30
 40 Asp Gly Arg Lys Met Cys Lys Asp Val Glu Glu Leu Leu Arg Gln
 41 35 40 45
 43 Arg Ala Gln Ala Glu Glu Arg Tyr Gly Lys Glu Leu Val Gln Ile
 44 50 55 60
 46 Ala Arg Lys Ala Gly Gly Gln Thr Glu Met Asn Ser Leu Arg Thr
 47 65 70 75
 49 Ser Phe Asp Ser Leu Lys Gln Gln Thr Glu Asn Val Gly Ser Ala
 50 80 85 90
 52 His Ile Gln Leu Ala Leu Ala Leu Arg Glu Glu Leu Arg Ser Leu
 53 95 100 105
 55 Glu Glu Phe Arg Glu Arg Gln Lys Glu Gln Arg Lys Lys Tyr Glu
 56 110 115 120
 58 Ala Ile Met Asp Arg Val Gln Lys Ser Lys Leu Ser Leu Tyr Lys
 59 125 130 135
 61 Lys Thr Met Glu Ser Lys Lys Ala Tyr Asp Gln Lys Cys Arg Asp
 62 140 145 150
 64 Ala Asp Asp Ala Glu Gln Ala Phe Glu Arg Val Ser Ala Asn Gly
 65 155 160 165
 67 His Gln Lys Gln Val Glu Lys Ser Gln Asn Lys Ala Lys Gln Cys
 68 170 175 180

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/068,377D

DATE: 01/04/2004

TIME: 13:06:58

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

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70  Lys Glu Ser Ala Thr Glu Ala Glu Arg Val Tyr Arg Gln Asn Ile
71                                185                                190                                195
73  Glu Gln Leu Glu Arg Ala Arg Thr Glu Trp Glu Gln Glu His Arg
74                                200                                205                                210
76  Thr Thr Cys Glu Ala Phe Gln Leu Gln Glu Phe Asp Arg Leu Thr
77                                215                                220                                225
79  Ile Leu Arg Asn Ala Leu Trp Val His Cys Asn Gln Leu Ser Met
80                                230                                235                                240
82  Gln Cys Val Lys Asp Asp Glu Leu Tyr Glu Glu Val Arg Leu Thr
83                                245                                250                                255
85  Leu Glu Gly Cys Asp Val Glu Gly Asp Ile Asn Gly Phe Ile Gln
86                                260                                265                                270
88  Ser Lys Ser Thr Gly Arg Glu Pro Pro Ala Pro Val Pro Tyr Gln
89                                275                                280                                285
91  Asn Tyr Tyr Asp Arg Glu Val Thr Pro Leu Ile Gly Ser Pro Ser
92                                290                                295                                300
94  Ile Gln Pro Ser Cys Gly Val Ile Lys Arg Phe Ser Gly Leu Leu
95                                305                                310                                315
97  His Gly Ser Pro Lys Thr Thr Pro Ser Ala Pro Ala Ala Ser Thr
98                                320                                325                                330
100 Glu Thr Leu Thr Pro Thr Pro Glu Arg Asn Glu Leu Val Tyr Ala
101                                335                                340                                345
103 Ser Ile Glu Val Gln Ala Thr Gln Gly Asn Leu Asn Ser Ser Ala
104                                350                                355                                360
106 Gln Asp Tyr Arg Ala Leu Tyr Asp Tyr Thr Ala Gln Asn Ser Asp
107                                365                                370                                375
109 Glu Leu Asp Ile Ser Ala Gly Asp Ile Leu Ala Val Ile Leu Glu
110                                380                                385                                390
112 Gly Glu Asp Gly Trp Trp Thr Val Glu Arg Asn Gly Gln Arg Gly
113                                395                                400                                405
115 Phe Val Pro Gly Ser Tyr Leu Glu Lys Leu
116                                410                                415
118 <210> SEQ ID NO: 2
119 <211> LENGTH: 2100
120 <212> TYPE: DNA
121 <213> ORGANISM: Mus Musculus
123 <400> SEQUENCE: 2
124 caatatttca agctatacca agcatacaat caactccaag cttatgccca 50
126 agaagaagcg gaaggtctcg agcggcgcca attttaatca aagtgggaat 100
128 attgctgata gtcattgtc cttcactttc actaacagta gcaacggtcc 150
130 gaacctcata acaactcaaa caaattctca agcgctttca caaccaattg 200
132 cctcctctaa cgttcatgat aacttcatga ataatgaaat cacggctagt 250
134 aaaattgatg atggtaataa ttcaaaacca ctgtcacctg gttggacgga 300
136 ccaaactgcg tataacgcgt ttggaatcac tacagggatg tttaatacca 350
138 ctacaatgga tgatgtatat aactatctat tcgatgatga agatacccca 400
140 ccaaacccaa aaaaagaggg tgggtcgacc cacgcgtccg gctccttcc 450
142 catttcgctg ctgattctag ccccaaacaa aacaggttga gcctttttcc 500
144 tcctccggca gttgcctctg gcttgtggct gccttctgag cgtttcagac 550
146 ggcgcgggct gggagtggga gggagggcct gggctagccg cgctgggact 600

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RAW SEQUENCE LISTING

DATE: 01/04/2004

PATENT APPLICATION: US/09/068,377D

TIME: 13:06:58

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

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148 gggacgtgct cctggctcct ggcccatgct cagccctgct tgaagcagga 650
150 gtgctagcat ttgacacaac gcccttggag gatgatggcc cagctgcagt 700
152 tccgagatgc cttctggtgc agggacttca cgccccacac aggttatgag 750
154 gtgctactgc agaggctgct ggacggcagg aagatgtgca aggatgtgga 800
156 ggagctgctc agacagaggg cccaggcgga ggagaggtac gggaaggagc 850
158 tgggtgcagat tgcacgcaag gctggtggcc agacagagat gaattccctg 900
160 aggacctcct ttgactccct gaagcagcaa acagagaatg tgggcagtgc 950
162 acacatccag ctggcccttg ccctgctgta ggagctgcgg agcctggagg 1000
164 agttccgaga gagacagaaa gagcagcgga agaagtatga ggccatcatg 1050
166 gaccgtgtcc agaagagcaa gttgtcgctc tacaagaaga ccatggagtc 1100
168 caagaaggca tatgaccaga agtgcaggga tgcagatgat gctgagcagg 1150
170 ccttcgagcg tgtgagtgcc aatggccacc agaagcaagt agaaaagagc 1200
172 cagaacaaag ccaagcagtg caaggagtca gccacagagg cagaaagagt 1250
174 gtacaggcaa aatatcgaac aactggagag agcagaggacc gagtgggagc 1300
176 aggagcaccg gactacctgt gaggccttcc agttgcagga gtttgaccgg 1350
178 ctaccatcc tccgcaatgc cctgtgggtg cactgtaacc agctctccat 1400
180 gcagtgtgtc aaggatgatg agctctatga ggaagtgcgg ctgacccttg 1450
182 agggctgtga tgtggaaggt gacatcaatg gcttcatcca gtccaagagc 1500
184 actggcagag agccccagc tccggtgcct tatcagaact actatgacag 1550
186 ggaggtgacc cactgattg gcagccctag catccagccc tcctgcggtg 1600
188 tgataaagag gttctctggg ctgctacatg gaagtcccaa gaccacacct 1650
190 tctgctcctg ctgcttccac agagactctg actcccaccc ctgagcggaa 1700
192 tgagttggtc tacgcatcca tcgaagtgca ggcgaccag ggaaacctta 1750
194 actcatcagc ccaggactac cgggcactct acgactacac tgcacagaat 1800
196 tctgatgagc tggacatttc cgcgggagac atcctggcgg tcacctgga 1850
198 aggggaggat ggctggtgga ctgtggagcg gaacggacaa cgtggctttg 1900
200 tccctgggtc gtacttggag aagctctgag gaaaggctag cagtctccac 1950
202 atacctccgc cctgactgtg aggtcaggac tgtttctttc catcaccgcc 2000
204 caggcctcac ggggccagaa ccaagcccgg tgggtgctgg catgggctgg 2050
206 gtgctggcta ctctcaataa atgtctccca gaaggaaaaa aaaaaaaaaa 2100

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208 <210> SEQ ID NO: 3

209 <211> LENGTH: 48

210 <212> TYPE: PRT

211 <213> ORGANISM: Mus Musculus

213 <400> SEQUENCE: 3

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214 Leu Tyr Asp Tyr Thr Ala Gln Asn Ser Asp Glu Leu Asp Ile Ser
215 1 5 10 15
217 Ala Gly Asp Ile Leu Ala Val Ile Leu Glu Gly Glu Asp Gly Trp
218 20 25 30
220 Trp Thr Val Glu Arg Asn Gly Gln Arg Gly Phe Val Pro Gly Ser
221 35 40 45

```

223 Tyr Leu Arg

226 <210> SEQ ID NO: 4

227 <211> LENGTH: 50

228 <212> TYPE: PRT

229 <213> ORGANISM: Homo sapien

231 <400> SEQUENCE: 4

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232 Leu Tyr Gln Tyr Ile Gly Gln Asp Val Asp Glu Leu Ser Phe Asn
233 1 5 10 15

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RAW SEQUENCE LISTING

DATE: 01/04/2004

PATENT APPLICATION: US/09/068,377D

TIME: 13:06:58

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

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235 Val Asn Glu Val Ile Glu Ile Leu Ile Glu Asp Ser Ser Gly Trp
236                               20                               25                               30
238 Trp Lys Gly Arg Leu His Gly Gln Glu Gly Leu Phe Pro Gly Asn
239                               35                               40                               45
241 Tyr Val Glu Lys Ile
242                               50
244 <210> SEQ ID NO: 5
245 <211> LENGTH: 50
246 <212> TYPE: PRT
247 <213> ORGANISM: Homo sapien
249 <400> SEQUENCE: 5
250 Leu Tyr Asp Tyr Gln Glu Lys Ser Pro Arg Glu Val Thr Met Lys
251   1                               5                               10                               15
253 Lys Gly Asp Ile Leu Thr Leu Leu Asn Ser Thr Asn Lys Asp Trp
254                               20                               25                               30
256 Trp Lys Val Glu Val Asn Asp Arg Gln Gly Phe Val Pro Ala Ala
257                               35                               40                               45
259 Tyr Val Lys Lys Leu
260                               50
262 <210> SEQ ID NO: 6
263 <211> LENGTH: 50
264 <212> TYPE: PRT
265 <213> ORGANISM: Homo sapien
267 <400> SEQUENCE: 6
268 Leu Tyr Asp Tyr Gln Gly Glu Gly Ser Asp Glu Leu Ser Phe Asp
269   1                               5                               10                               15
271 Pro Asp Asp Ile Ile Thr Asp Ile Glu Met Val Asp Glu Gly Trp
272                               20                               25                               30
274 Trp Arg Gly Gln Cys Arg Gly His Phe Gly Leu Phe Pro Ala Asn
275                               35                               40                               45
277 Tyr Val Lys Leu Leu
278                               50
280 <210> SEQ ID NO: 7
281 <211> LENGTH: 48
282 <212> TYPE: PRT
283 <213> ORGANISM: Homo sapien
285 <400> SEQUENCE: 7
286 Leu Tyr Asp Tyr Gln Ala Ala Gly Asp Asp Glu Ile Ser Phe Asp
287   1                               5                               10                               15
289 Pro Asp Asp Ile Ile Thr Asn Ile Glu Met Ile Asp Asp Gly Trp
290                               20                               25                               30
292 Trp Arg Gly Val Cys Lys Gly Arg Tyr Gly Leu Phe Pro Ala Asn
293                               35                               40                               45
295 Tyr Val Glu
298 <210> SEQ ID NO: 8
299 <211> LENGTH: 8
300 <212> TYPE: PRT
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:

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RAW SEQUENCE LISTING

DATE: 01/04/2004

PATENT APPLICATION: US/09/068,377D

TIME: 13:06:58

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

304 <223> OTHER INFORMATION: Amino acid epitope tag
306 <400> SEQUENCE: 8
307 Asp Tyr Lys Asp Asp Asp Asp Lys
308 1 5
310 <210> SEQ ID NO: 9
311 <211> LENGTH: 33
312 <212> TYPE: DNA
313 <213> ORGANISM: Artificial Sequence
315 <220> FEATURE:
316 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
318 <400> SEQUENCE: 9
319 cgcgatcca ccatgatggc ccagctgcag ttc 33
321 <210> SEQ ID NO: 10
322 <211> LENGTH: 45
323 <212> TYPE: DNA
324 <213> ORGANISM: Artificial Sequence
326 <220> FEATURE:
327 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
329 <400> SEQUENCE: 10
330 gtacgcgtcg actcacttgt catcgctcgtc cttgtatgctg agctt 45
332 <210> SEQ ID NO: 11
333 <211> LENGTH: 18
334 <212> TYPE: DNA
335 <213> ORGANISM: Artificial Sequence
337 <220> FEATURE:
338 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
340 <400> SEQUENCE: 11
341 tgcctttctc tccacagg 18
343 <210> SEQ ID NO: 12
344 <211> LENGTH: 36
345 <212> TYPE: DNA
346 <213> ORGANISM: Artificial Sequence
348 <220> FEATURE:
349 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
351 <400> SEQUENCE: 12
352 ctccttgagg ttctactagt gggggctggg gtcctg 36
354 <210> SEQ ID NO: 13
355 <211> LENGTH: 39
356 <212> TYPE: DNA
357 <213> ORGANISM: Artificial Sequence
359 <220> FEATURE:
360 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
362 <400> SEQUENCE: 13
363 gcggccgcac tagtatccag tctgtgctcc atctgttac 39
365 <210> SEQ ID NO: 14
366 <211> LENGTH: 17
367 <212> TYPE: DNA
368 <213> ORGANISM: Artificial Sequence
370 <220> FEATURE:

6

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/068,377D

DATE: 01/04/2004
TIME: 13:06:59

Input Set : A:\P1066P2.txt
Output Set: N:\CRF4\01042004\I068377D.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:27; Xaa Pos. 2,3

(see p.7)

09/068,3770

7

<210> SEQ ID NO 27

<211> LENGTH: 4

<212> TYPE: PRT

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Any amino acid

<400> SEQUENCE: 27

Pro Xaa Xaa Pro

1

see item 11 on Enov summary sheet

this does not explain 'Artificial Sequence'

these need explaining (p.6)

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/068,377D

DATE: 01/04/2004

TIME: 13:06:59

Input Set : A:\P1066P2.txt

Output Set: N:\CRF4\01042004\I068377D.raw

L:711 M:258 W: Mandatory Feature missing, <221> Tag not found for SEQ ID#:27

L:711 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:27

L:711 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0